

# BookletChart™

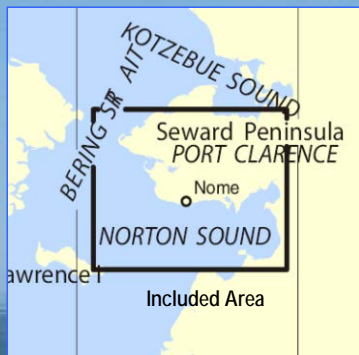
## Norton Sound to Bering Strait

NOAA Chart 16200

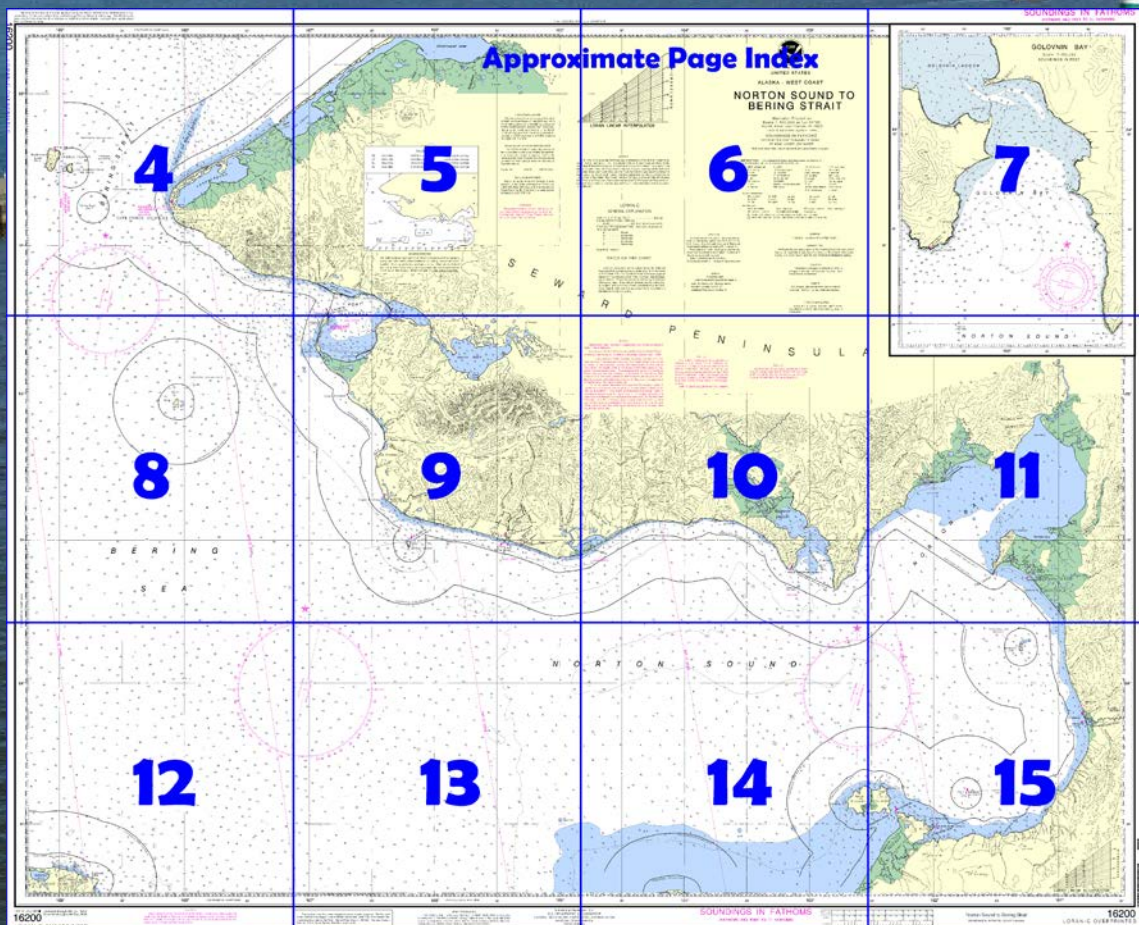


*A reduced-scale NOAA nautical chart for small boaters*

*When possible, use the full-size NOAA chart for navigation.*



- Complete, reduced-scale nautical chart
- Print at home for free
- Convenient size
- Up-to-date with Notices to Mariners
- Compiled by NOAA's Office of Coast Survey, the nation's chartmaker



**Published by the**  
**National Oceanic and Atmospheric Administration**  
**National Ocean Service**  
**Office of Coast Survey**  
[www.NauticalCharts.NOAA.gov](http://www.NauticalCharts.NOAA.gov)  
**888-990-NOAA**

### What are Nautical Charts?

Nautical charts are a fundamental tool of marine navigation. They show water depths, obstructions, buoys, other aids to navigation, and much more. The information is shown in a way that promotes safe and efficient navigation. Chart carriage is mandatory on the commercial ships that carry America's commerce. They are also used on every Navy and Coast Guard ship, fishing and passenger vessels, and are widely carried by recreational boaters.

### What is a BookletChart™?

This BookletChart is made to help recreational boaters locate themselves on the water. It has been reduced in scale for convenience, but otherwise contains all the information of the full-scale nautical chart. The bar scales have also been reduced, and are accurate when used to measure distances in this BookletChart. See the Note at the bottom of page 5 for the reduction in scale applied to this chart.

Whenever possible, use the official, full scale NOAA nautical chart for navigation. Nautical chart sales agents are listed on the Internet at <http://www.NauticalCharts.NOAA.gov>.

This BookletChart does NOT fulfill chart carriage requirements for regulated commercial vessels under Titles 33 and 44 of the Code of Federal Regulations.

### Notice to Mariners Correction Status

This BookletChart has been updated for chart corrections published in the U.S. Coast Guard Local Notice to Mariners, the National Geospatial Intelligence Agency Weekly Notice to Mariners, and, where applicable, the Canadian Coast Guard Notice to Mariners. Additional chart corrections have been made by NOAA in advance of their publication in a Notice to Mariners. The last Notices to Mariners applied to this chart are listed in the Note at the bottom of page 7. Coast Pilot excerpts are not being corrected.

For latest Coast Pilot excerpt visit the Office of Coast Survey website at <http://www.nauticalcharts.noaa.gov/nsd/searchbychart.php?chart=16200>.



#### (Selected Excerpts from Coast Pilot)

The coast from St. Michael Bay to Cape Darby is generally low and rock strewn, and the depths when approaching it shoal gradually from 6 fathoms toward the beach; a depth of 3 fathoms can be taken as close as 0.8 mile except in a few places. There are no outlying dangers, but a reef makes off about 0.5 mile from the shore 2 miles S of **Black Point**, about 26 miles E from Saint Michael. **Tolstoi Point** and its vicinity are high and rocky, and from there to

Unalakleet River the shore is low.

**Anchorage.**—Anchorage with good protection from S winds can be found in **Klikitarik Bay**, 15 miles E of Saint Michael. There are several native campsites along this coast; the only permanent settlement is Unalakleet. **Unalakleet** (63°53'N., 160°47'W.), at the E end of Norton Sound, is the largest village on the sound E of Nome. Approach to Unalakleet is generally from the NW because of shoaling that occurs E and SE of **Unalakleet River** entrance. In 1994, the USCGC IRONWOOD found good water by approaching from NW on a ESE heading until intercepting longitude 160°50.0'W., then turning E, keeping the river entrance off the bow. The river entrance is marked by seasonal buoys, however, local knowledge is required to transit safely. An aerolight is about 0.5 mile N of the entrance. The North River aero radiobeacon has been found valuable as an aid to surface navigation.

**Unalakleet River South Spit Light** (63°52'04"N., 160°47'16"W.) is shown seasonally from a skeleton tower with a red and white diamond-shaped daymark on a sandspit S of the river entrance.

Good anchorage for vessels with moderate draft, in 32 feet, sticky mud bottom, was found in 63°53.0'N., 160°56.0'W. Ranges were 3.5 miles from Unalakleet, 15.8 miles from Tolstoi Point, and 16.3 miles from Besboro Island. This position provided good holding ground but was highly exposed. There were not any sheltered anchorages in this area. Vessels have anchored in 5 fathoms with 60 fathoms of chain about 2 miles offshore. An alternate anchorage is about 6 miles N of Unalakleet.

**Besboro Island** is 1,040 feet high and very prominent; on a clear day it can be seen from Saint Michael. It affords a poor lee, as the wind draws all around the island. A shoal covered 4 to 4½ fathoms makes off 2 miles in a NE direction from the N end of the island. The W side of the island is bold-to, and the E side can be approached as close as 0.5 mile, with a depth of over 5 fathoms.

**Shaktoolik River Entrance Light** (64°22'43"N., 161°14'10"W.), 14 feet (4.3 m) above the water, is shown seasonally from a skeleton tower with a red and white diamond-shaped daymark on the spit at the entrance to **Shaktoolik River**, 7.5 miles E of Cape Denbigh.

**Shaktoolik** is 4 miles S of Shaktoolik River entrance. Vessels can anchor 4 miles off the village in 7 fathoms, mud bottom. Tugs and barges and small boats beach themselves, or tie off, to the gradually shoaling shale beach near the village, but the approach is extremely shallow and should be made with caution. Some small boats pass over the bar at the mouth of the river and follow the shallow slough on the backside of the spit SE to the village.

**Cape Denbigh** is a moderately high rounded hill, joined to the mainland by a low narrow neck. The head of the bight, E of the cape, is shoal, but in the approach the water shoals gradually. A good anchorage in NE winds can be had E of the cape in depths suitable to the draft of the vessel. The S end of the cape is bold-to, and its W side, 2.5 miles N of the point, can be approached close-to in 4 fathoms. The water shoals rapidly inside to a depth of 4 fathoms when approaching the shore.

**Norton Bay** is generally shoal. About midway between **Point Dexter** and **Bald Head** is a depth of about 6 fathoms, and from this depth the water shoals gradually as the shores are approached in any direction inside of Bald Head.

The entrance to **Koyuk River**, flowing into the NE end of Norton Bay, is marked by seasonal buoys; local knowledge is required to enter the river.

### U.S. Coast Guard Rescue Coordination Center 24 hour Regional Contact for Emergencies

RCC Juneau	Commander	
	17th CG District	(907) 463-2000
	Juneau, Alaska	



# Table of Selected Chart Notes

Corrected through NM Oct. 16/04  
Corrected through LNM Sep. 28/04

## HEIGHTS

Heights in feet above Mean High Water.

## NOTE B

### FLOATING AIDS

Aids maintained for periods indicated to mark the channels to following places:  
Koyuk River (July 1 to Oct. 1)  
Unalakleet River (June 1 to Nov. 1)

## LIGHTS

U.S. Marine lights on this chart are maintained from July 1 to Nov 1 unless otherwise charted.

## AIDS TO NAVIGATION

Consult U.S. Coast Guard Light List for supplemental information concerning aids to navigation.

## NOAA WEATHER RADIO BROADCASTS

The NOAA Weather Radio station listed below provides continuous weather broadcasts. The reception range is typically 20 to 40 nautical miles from the antenna site, but can be as much as 100 nautical miles for stations at high elevations.

Nome, AK      WXJ-62      162.55 MHz

## HORIZONTAL DATUM

The horizontal reference datum of this chart is North American Datum of 1983 (NAD 83), which for charting purposes is considered equivalent to the World Geodetic System 1984 (WGS 84). Geographic positions referred to the North American Datum of 1927 must be corrected an average of 2.633" southward and 9.294" westward to agree with this chart.

## POLLUTION REPORTS

Report all spills of oil and hazardous substances to the National Response Center via 1-800-424-8802 (toll free), or to the nearest U.S. Coast Guard facility if telephone communication is impossible (33 CFR 153).

## NOTE A

Navigation regulations are published in Chapter 2, U.S. Coast Pilot 9. Additions or revisions to Chapter 2 are published in the Notice to Mariners. Information concerning the regulations may be obtained at the Office of the Commander, 17th Coast Guard District in Juneau, Alaska, or at the Office of the District Engineer, Corps of Engineers in Anchorage, Alaska.

Refer to charted regulation section numbers.

## CAUTION

Temporary changes or defects in aids to navigation are not indicated on this chart. See Local Notice to Mariners.

## CAUTION

Limitations on the use of radio signals as aids to marine navigation can be found in the U.S. Coast Guard Light Lists and National Geospatial-Intelligence Agency Publication 117. Radio direction-finder bearings to commercial broadcasting stations are subject to error and should be used with caution. Station positions are shown thus:  
○ (Accurate location)      ◐ (Approximate location)

## WARNING

The prudent mariner will not rely solely on any single aid to navigation, particularly on floating aids. See U.S. Coast Guard Light List and U.S. Coast Pilot for details.

## NOTE D

Mariners should exercise caution when transiting this area when the small arms firing range at 65° 14' 24" N; 166° 52' 18" W is in use. Monitor channel 16 VHF FM for times of operation.

Mercator Projection  
Scale 1:400,000 at Lat 64°30'  
North American Datum of 1983  
(World Geodetic System 1984)

SOUNDINGS IN FATHOMS  
(FATHOMS AND FEET TO ELEVEN FATHOMS)  
AT MEAN LOWER LOW WATER

## LORAN-C

### GENERAL EXPLANATION

LORAN-C FREQUENCY.....100kHz  
PULSE REPETITION INTERVAL  
9990.....99,900 Microseconds  
STATION TYPE DESIGNATORS: (Not individual station letter designators).  
M.....Master  
W.....Secondary  
X.....Secondary  
Y.....Secondary  
Z.....Secondary

EXAMPLE: 9990-X

### RATES ON THIS CHART

9990-X 9990-Y 9990-Z

Loran-C correction tables published by the National Geospatial-Intelligence Agency or others should not be used with this chart. The lines of position shown have been adjusted based on theoretically determined overland signal propagation delays. They have not been verified by comparison with survey data. Every effort has been made to meet the ¼ nautical mile accuracy criteria established by the U.S. Coast Guard. Mariners are cautioned not to rely solely on the latitudes in inshore waters.

## AUTHORITIES

Hydrography and topography by the National Ocean Service, Coast Survey, with additional data from the Corps of Engineers, Geological Survey, U.S. Coast Guard, and National Geospatial-Intelligence Agency.

## SOURCE DIAGRAM

The outlined areas represent the limits of the most recent hydrographic survey information that has been evaluated for charting. Surveys have been banded in this diagram by date and type of survey. Channels maintained by the U.S. Army Corps of Engineers are periodically resurveyed and are not shown on this diagram. Refer to Chapter 1, United States Coast Pilot.

## NOTE C

Maritime boundary provisionally applied pending formal exchange of instruments of ratification

According to Article 3 of the Agreement Between the United States of America and Russia on the Maritime Boundary signed June 1, 1990

1. In any area east of the maritime boundary that lies within 200 nautical miles of the baseline from which the breadth of the territorial sea of Russia is measured but beyond 200 nautical miles of the baselines from which the breadth of the territorial sea of the United States is measured (eastern special area) Russia agrees that henceforth the United States may exercise the sovereign rights and jurisdiction derived from exclusive economic zone jurisdiction that Russia would otherwise be entitled to exercise under international law in the absence of the agreement of the Parties on the maritime boundary

3. To the extent that either Party exercises the sovereign rights or jurisdiction in the special area or areas on its side of the maritime boundary as provided for in this Article, such exercise of sovereign rights or jurisdiction derives from the agreement of the Parties and does not constitute an extension of its exclusive economic zone. To this end, each Party shall take the necessary steps to ensure that any exercise on its part of such rights or jurisdiction in the special area or areas on its side of the maritime boundary shall be so characterized in its relevant laws, regulations, and charts

## UPDATING SERVICE

FOR THIS CHART, a listing of NOTICE TO MARINERS (NM) corrections subsequent to the NM corrected through date shown in the lower left hand corner, is available from the Chief, Marine Chart Division (N/CS2), National Ocean Service, NOAA, Silver Spring, Maryland 20910-3282.

## NOTE X

Within the 12-nautical mile Territorial Sea, established by Presidential Proclamation, some Federal laws apply. The Three Nautical Mile Line, previously identified as the outer limit of the territorial sea, is retained as it continues to depict the jurisdictional limit of the other laws. The 9-nautical mile Natural Resource Boundary off the Gulf coast of Florida, Texas, and Puerto Rico, and the Three Nautical Mile Line elsewhere remain in most cases the inner limit of Federal fisheries jurisdiction and the outer limit of the jurisdiction of the states. The 24-nautical mile Contiguous Zone and the 200-nautical mile Exclusive Economic Zone were established by Presidential Proclamation. Unless fixed by treaty or the U.S. Supreme Court, these maritime limits are subject to modification.

## ABBREVIATIONS (For complete list of Symbols and Abbreviations, see Chart No. 1.)

Aids to Navigation (lights are white unless otherwise indicated):

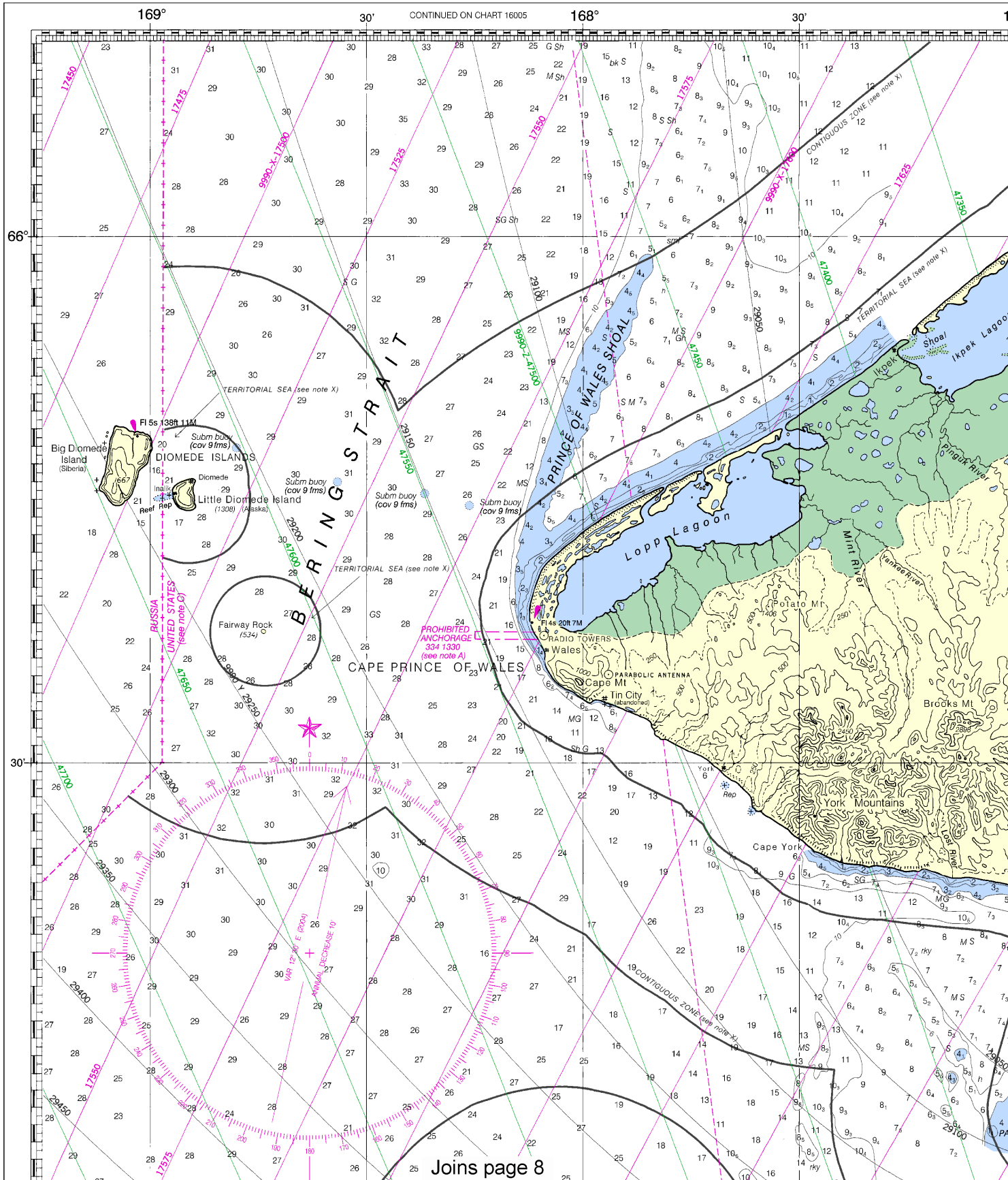
AERO aeronautical	G green	Mo morse code	R TR radio tower
Al alternating	Q interrupted quick	N nun	Rct rotating
B black	iso isophase	OBSC obscured	s seconds
Bn beacon	LT HQ lighthouse	OC occulting	SEC sector
C can	M nautical mile	Or orange	SI M statute miles
DIA diaphone	m minutes	Q quick	VQ very quick
F fixed	MICRO TR microwave tower	R red	W white
Fl flashing	Mkr marker	Ra Ref radar reflector	WHIS whistle
		R Bn radiobeacon	Y yellow

### Bottom characteristics:

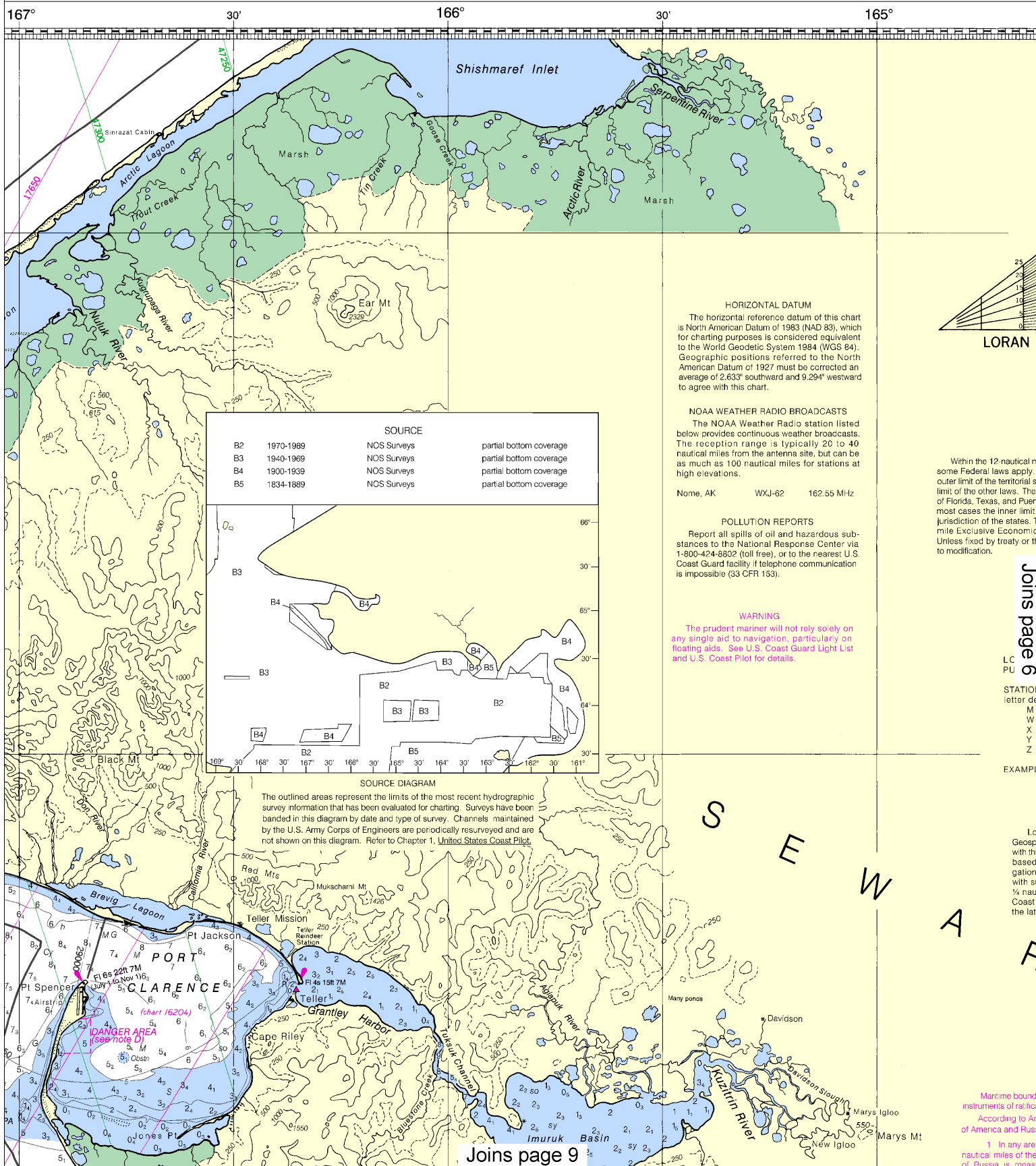
Bds boulders	Co coral	gy gray	Oys oysters	so soft
bk broken	G gravel	h hard	Rk rock	Sh shells
Cy clay	Grs grass	M mud	S sand	sy sticky

### Miscellaneous:

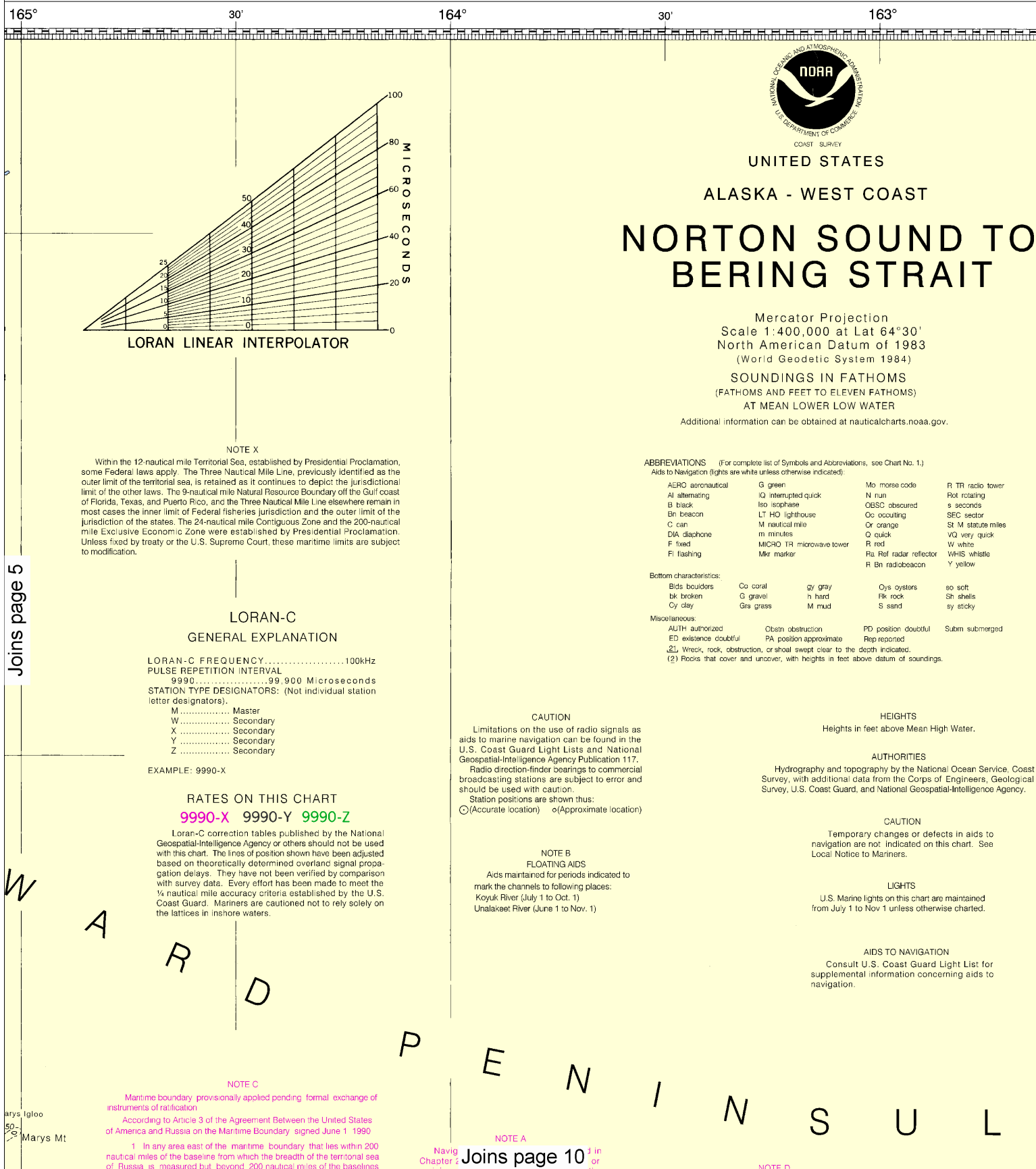
AUTH authorized	Obstn obstruction	PD position doubtful	Subm submerged
ED existence doubtful	PA position approximate	Rep reported	
(2) Wreck, rock, obstruction, or shoal swept clear to the depth indicated.			
(2) Rocks that cover and uncover, with heights in feet above datum of soundings.			



Joins page 8

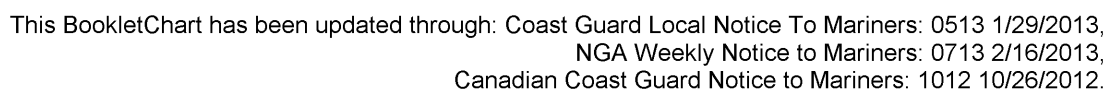


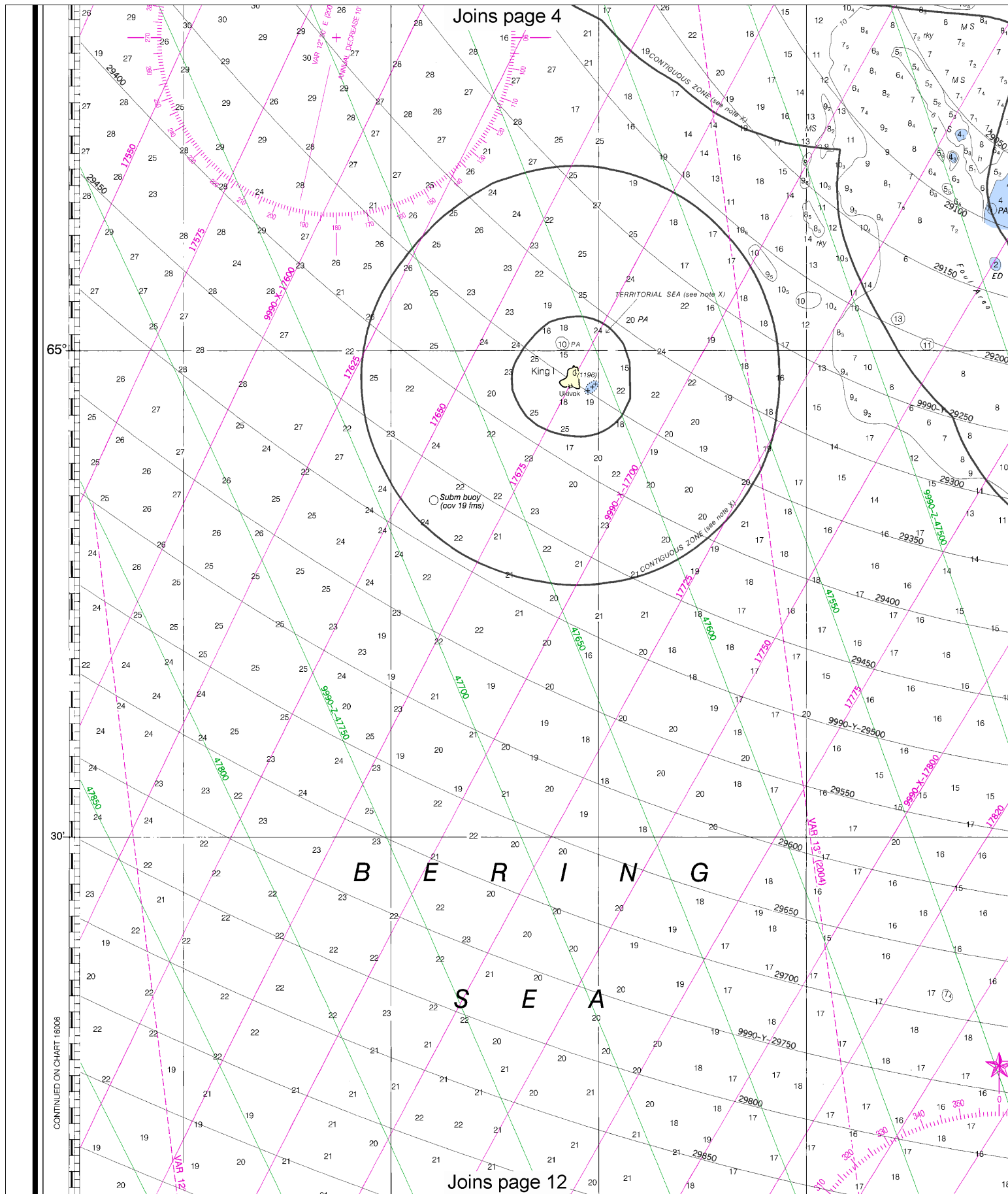
This BookletChart was reduced to 70% of the original chart scale. The new scale is 1:571429. Barscales have also been reduced and are accurate when used to measure distances in this BookletChart.





(FATHOMS AND FEET TO 11 FATHOMS)

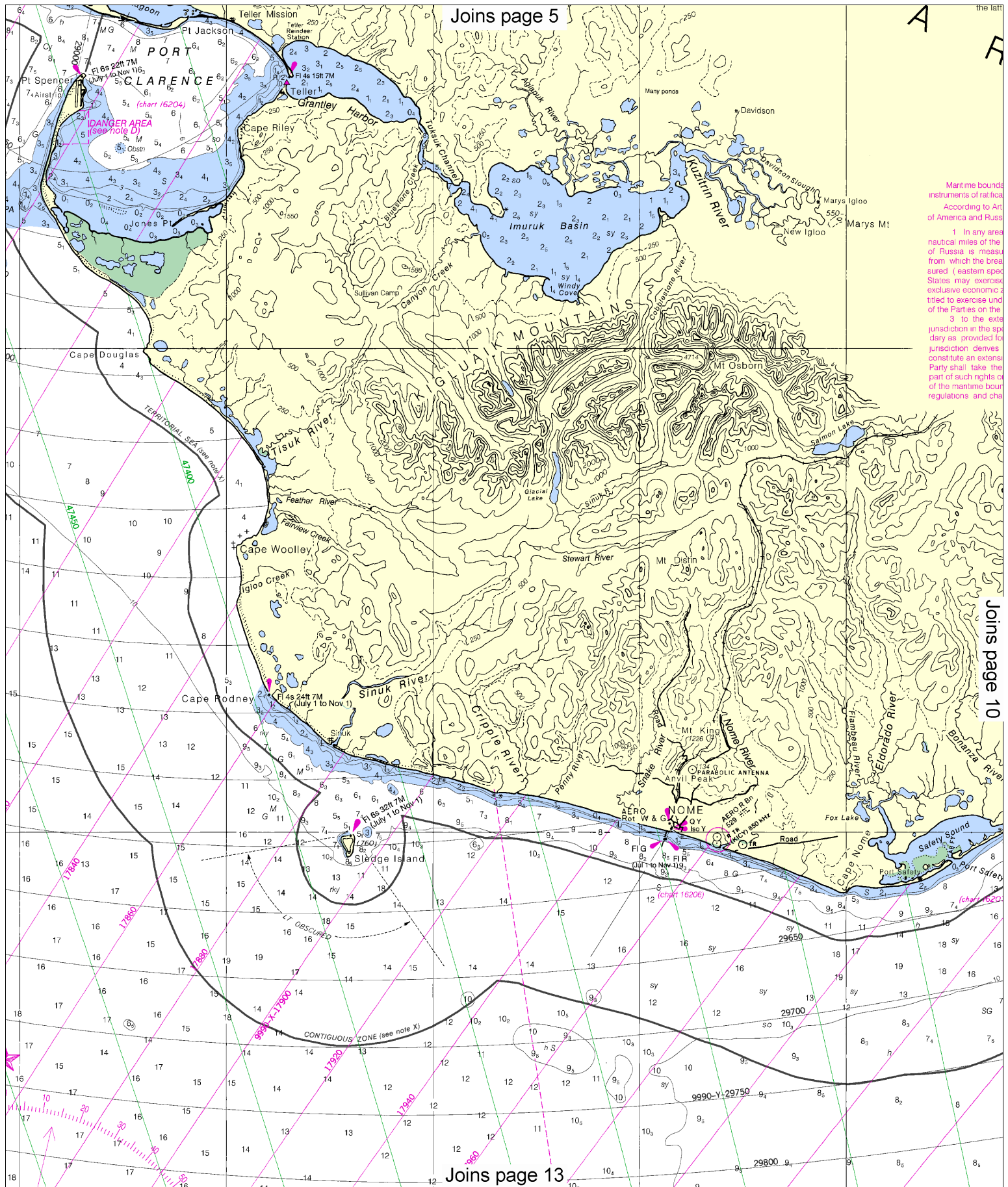




8

Note: Chart grid lines are aligned with true north.

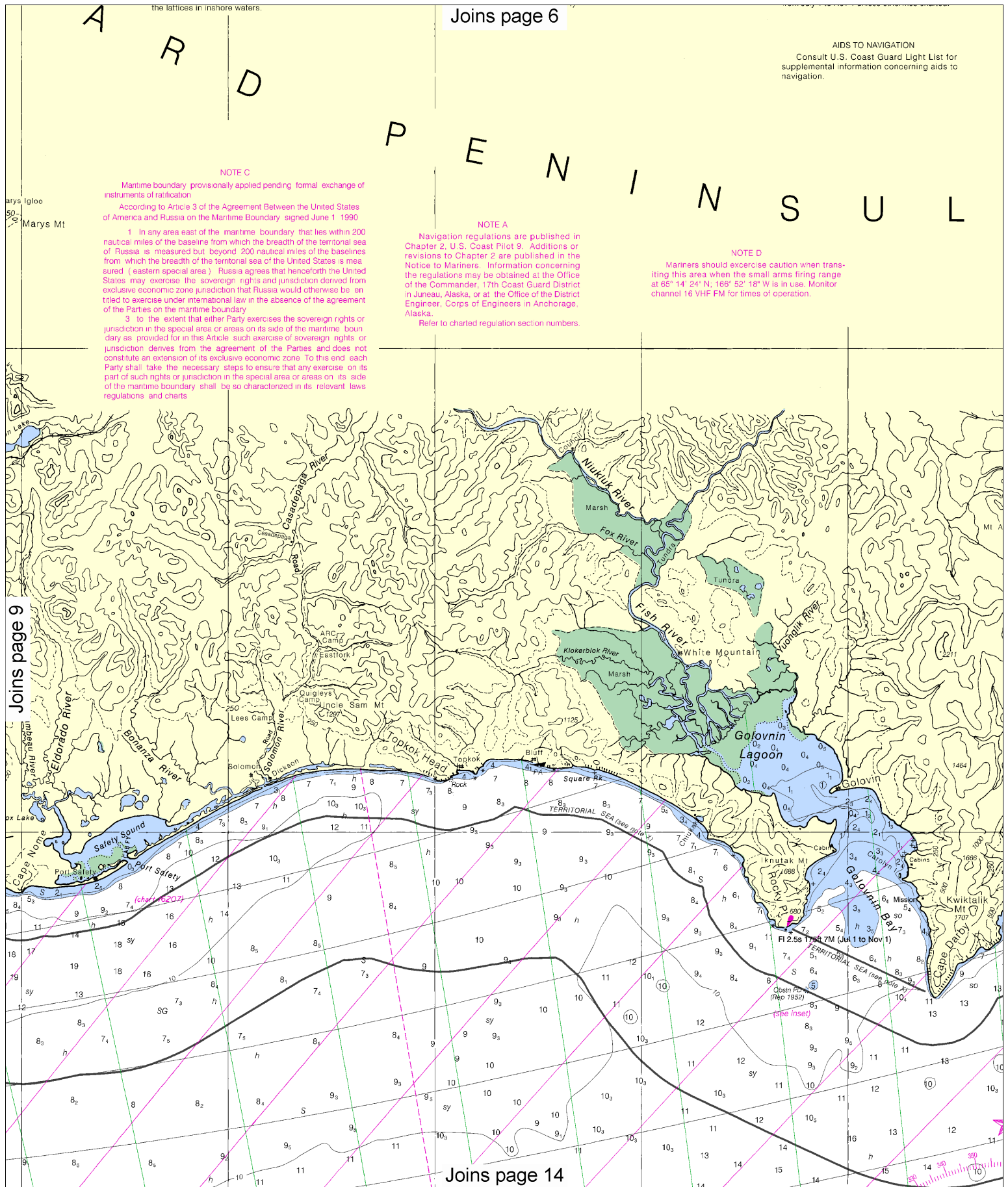




Maritime bounds  
instruments of ratifica  
According to Art  
of America and Russ

1. In any area  
nautical miles of the  
of Russia is measu  
from which the brea  
sured ( eastern spec  
States may exercise  
exclusive economic z  
titled to exercise und  
of the Parties on the

3. to the exte  
jurisdiction in the sp  
dary as provided fo  
jurisdiction derives  
constitute an extens  
Party shall take the  
part of such rights of  
of the maritime bou  
regulations and cha



Joins page 6

AIDS TO NAVIGATION  
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exclusive economic zone jurisdiction that Russia would otherwise be en-  
titled to exercise under international law in the absence of the agreement  
of the Parties on the maritime boundary

3. to the extent that either Party exercises the sovereign rights or  
jurisdiction in the special area or areas on its side of the maritime bound-  
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Party shall take the necessary steps to ensure that any exercise on its  
part of such rights or jurisdiction in the special area or areas on its side  
of the maritime boundary shall be so characterized in its relevant laws  
regulations and charts

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in Juneau, Alaska, or at the Office of the District  
Engineer, Corps of Engineers in Anchorage,  
Alaska.

Refer to charted regulation section numbers.

NOTE D

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at 65° 14' 24' N, 166° 52' 18' W is in use. Monitor  
channel 16 VHF FM for times of operation.

Joins page 9

Joins page 14

10

Note: Chart grid  
lines are aligned  
with true north.

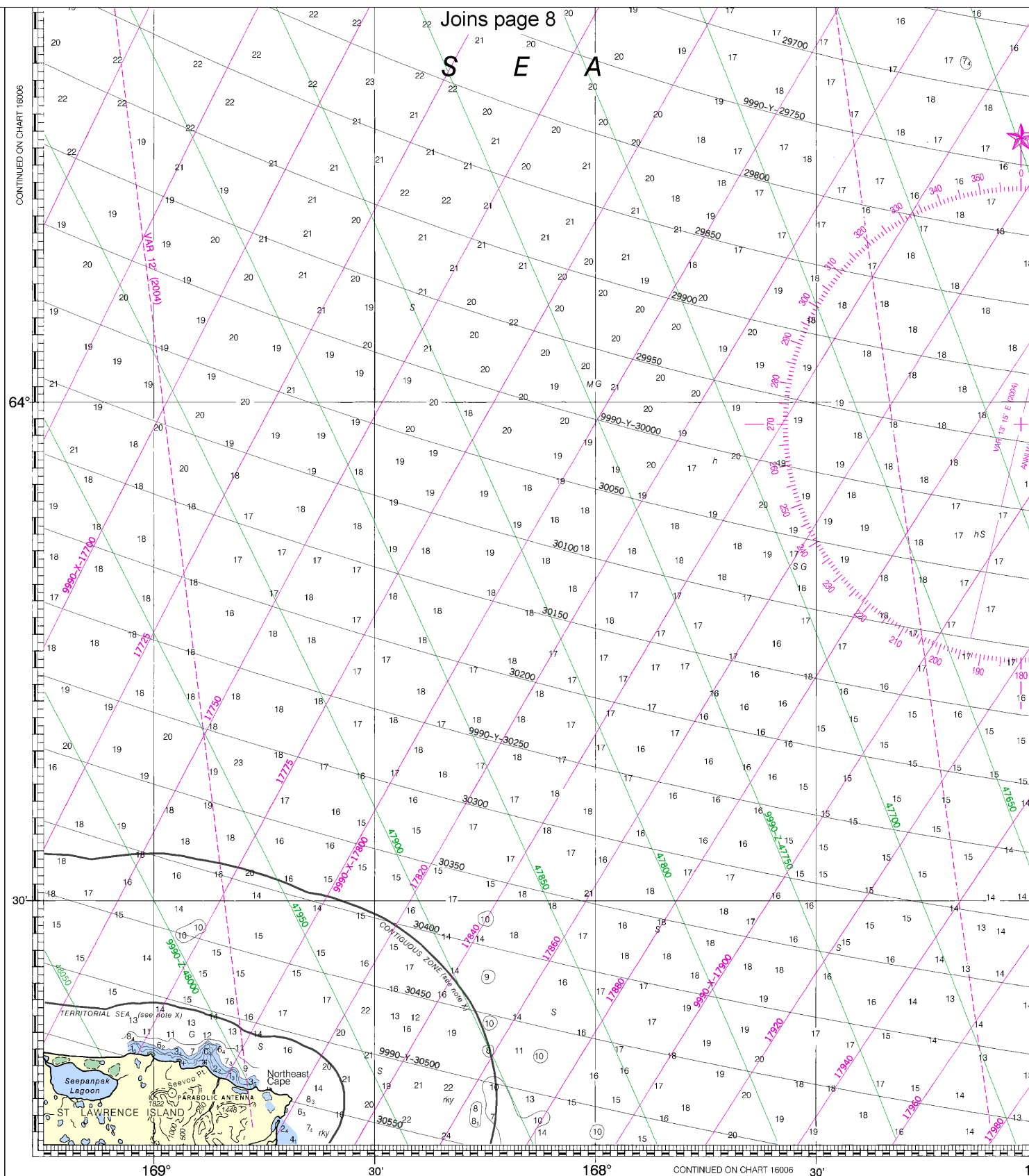






Joins page 8

*S E A*



14th Ed., Oct./04 ■ Corrected through NM Oct. 16/04  
10000 Corrected through LNM Sep. 28/04

16200

LORAN-C OVERPRINTED

**CAUTION**

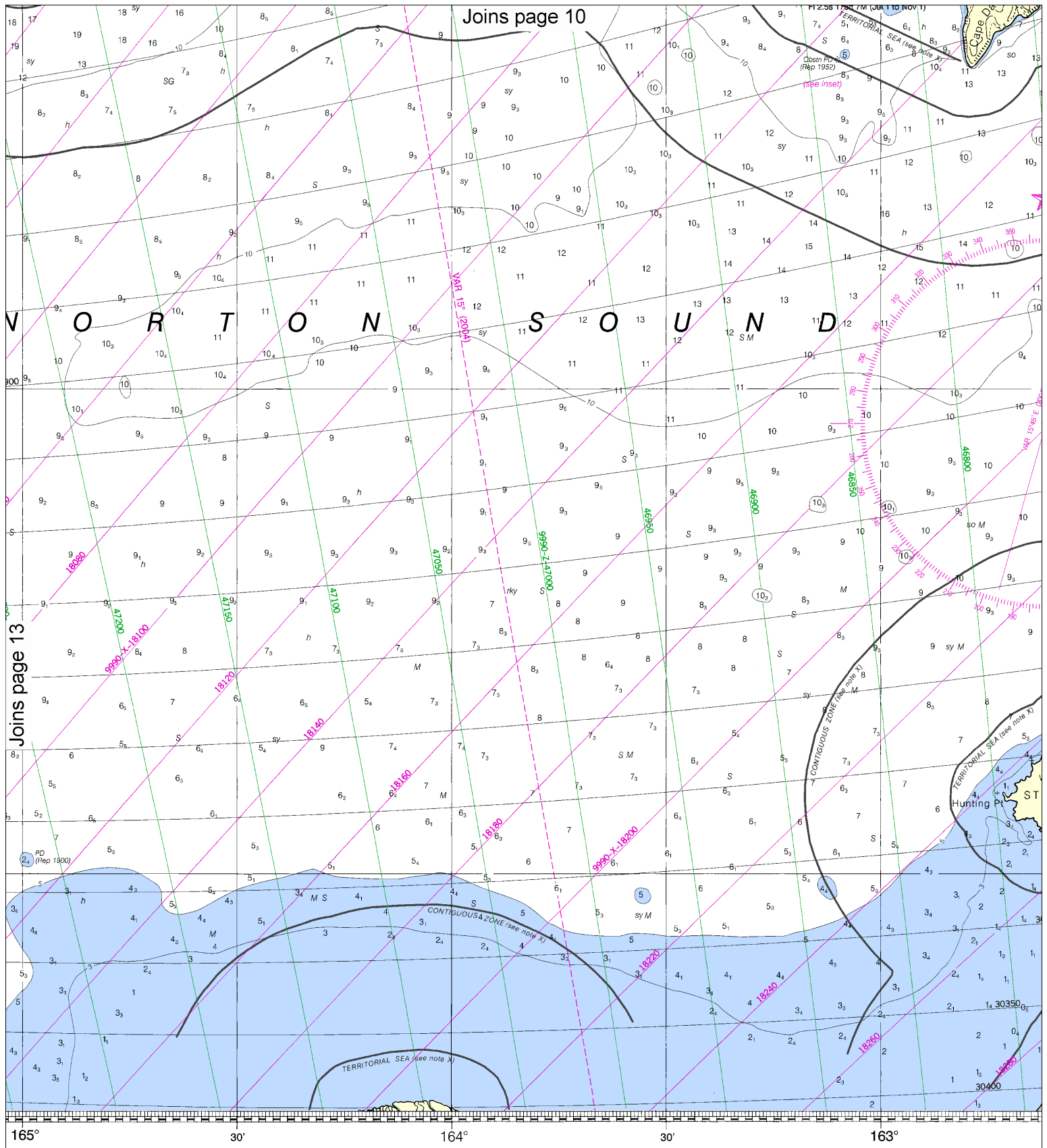
This chart has been corrected from the Notice to Mariners (NM) published weekly by the National Geospatial-Intelligence Agency and the Local Notice to Mariners (LNM) issued periodically by each U.S. Coast Guard district to the dates shown in the lower left hand corner.

This is the  
Ocean Service  
improving  
Service, M

# 12

Note: Chart grid lines are aligned with true north.





Published at Washington, D.C.  
 DEPARTMENT OF COMMERCE  
 NAUTIC AND ATMOSPHERIC ADMINISTRATION  
 NATIONAL OCEAN SERVICE  
 COAST SURVEY

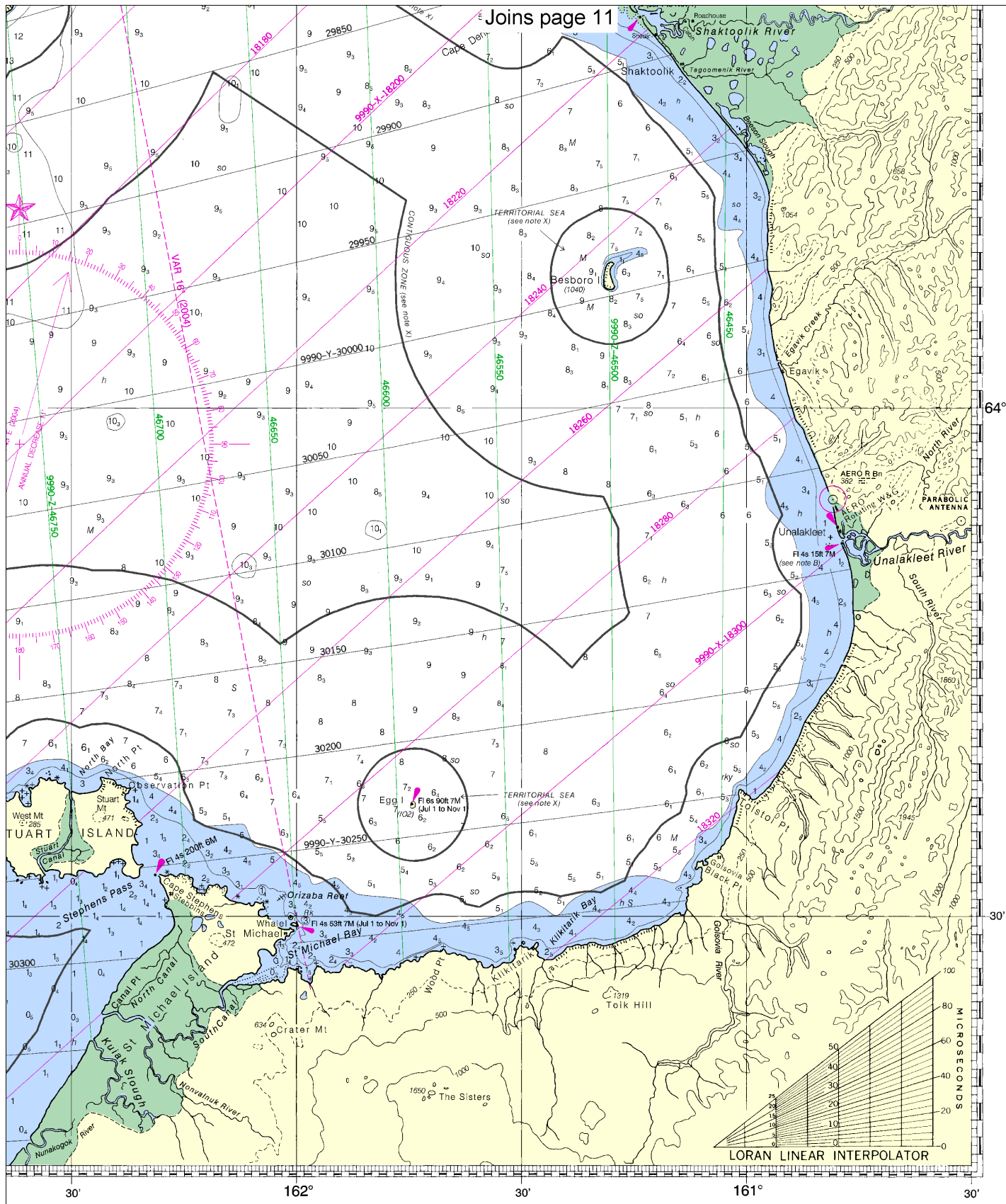
**SOUNDINGS IN FATHOMS**  
 (FATHOMS AND FEET TO 11 FATHOMS)

FATHOMS	1	2	3	4
FEET	6	12	18	24
METERS	1	2	3	4

**14**

Note: Chart grid lines are aligned with true north.





Joins page 11

64°

30'

162°

30'

161°

30'

Norton Sound to Bering Strait  
SOUNDINGS IN FATHOMS - SCALE 1:400,000

**16200**  
LORAN-C OVERPRINTED

ED NO. 14  
NSN 7642014011235  
NSA REFERENCE NO. 16AC016200

**15**



EMERGENCY INFORMATION

## VHF Marine Radio channels for use on the waterways:

**Channel 6** – Inter-ship safety communications.

**Channel 9** – Communications between boats and ship-to-coast.

**Channel 13** – Navigation purposes at bridges, locks, and harbors.

**Channel 16** – Emergency, distress and safety calls to Coast Guard and others, and to initiate calls to other

vessels. Contact the other vessel, agree to another channel, and then switch.

**Channel 22A** – Calls between the Coast Guard and the public. Severe weather warnings, hazards to navigation and safety warnings are broadcast here.

**Channels 68, 69, 71, 72 and 78A** – Recreational boat channels.

**Getting and Giving Help** — Signal other boaters using visual distress signals (flares, orange flag, lights, arm signals); whistles; horns; and on your VHF radio. You are required by law to help boaters in trouble. Respond to distress signals, but do not endanger yourself.

## Distress Call Procedures

- Make sure radio is on.
- Select Channel 16.
- Press/Hold the transmit button.
- Clearly say: "MAYDAY, MAYDAY, MAYDAY."
- Also give: Vessel Name and/or Description; Position and/or Location; Nature of Emergency; Number of People on Board.
- Release transmit button.
- Wait for 10 seconds — If no response Repeat MAYDAY call.

**HAVE ALL PERSONS PUT ON LIFE JACKETS!**



**NOAA Weather Radio All Hazards (NWR)** is a nationwide network of radio stations broadcasting continuous weather information directly from the nearest National Weather Service office. NWR broadcasts official Weather Service warnings, watches, forecasts and other hazard information 24 hours a day, 7 days a week.

<http://www.nws.noaa.gov/nwr/>

## Quick References

Nautical chart related products and information	—	<a href="http://www.nauticalcharts.noaa.gov">http://www.nauticalcharts.noaa.gov</a>
Online chart viewer	—	<a href="http://www.nauticalcharts.noaa.gov/mcd/NOAAChartViewer.html">http://www.nauticalcharts.noaa.gov/mcd/NOAAChartViewer.html</a>
Report a chart discrepancy	—	<a href="http://ocsddata.ncd.noaa.gov/idrs/discrepancy.aspx">http://ocsddata.ncd.noaa.gov/idrs/discrepancy.aspx</a>
Chart and chart related inquiries and comments	—	<a href="http://ocsddata.ncd.noaa.gov/idrs/inquiry.aspx?frompage=ContactUs">http://ocsddata.ncd.noaa.gov/idrs/inquiry.aspx?frompage=ContactUs</a>
Chart updates (LNM and NM corrections)	—	<a href="http://www.nauticalcharts.noaa.gov/mcd/updates/LNM_NM.html">http://www.nauticalcharts.noaa.gov/mcd/updates/LNM_NM.html</a>
Coast Pilot online	—	<a href="http://www.nauticalcharts.noaa.gov/nsd/cpdownload.htm">http://www.nauticalcharts.noaa.gov/nsd/cpdownload.htm</a>
Tides and Currents	—	<a href="http://tidesandcurrents.noaa.gov">http://tidesandcurrents.noaa.gov</a>
Marine Forecasts	—	<a href="http://www.nws.noaa.gov/om/marine/home.htm">http://www.nws.noaa.gov/om/marine/home.htm</a>
National Data Buoy Center	—	<a href="http://www.ndbc.noaa.gov/">http://www.ndbc.noaa.gov/</a>
NowCoast web portal for coastal conditions	—	<a href="http://www.nowcoast.noaa.gov/">http://www.nowcoast.noaa.gov/</a>
National Weather Service	—	<a href="http://www.weather.gov/">http://www.weather.gov/</a>
National Hurricane Center	—	<a href="http://www.nhc.noaa.gov/">http://www.nhc.noaa.gov/</a>
Pacific Tsunami Warning Center	—	<a href="http://ptwc.weather.gov/">http://ptwc.weather.gov/</a>
Contact Us	—	<a href="http://www.nauticalcharts.noaa.gov/staff/contact.htm">http://www.nauticalcharts.noaa.gov/staff/contact.htm</a>



— For the latest news from Coast Survey, follow @nauticalcharts



This Booklet chart has been designed for duplex printing (printed on front and back of one sheet). If a duplex option is not available on your printer, you may print each sheet and arrange them back-to-back to allow for the proper layout when viewing.

NOAA's Office of Coast Survey



The Nation's Chartmaker